

Pre-Interview Summary for Application No. 10/539,624

Claim Objection - Amend claim 18 to change "freeing" to --freezing--.

Claims Analysis - The claimed controller is a programmable controller programmed to perform a number of functions. The claimed controller further limits the apparatus. As the predecessor court to the Federal Circuit made clear, it is well settled law that a programmed controller is patentably distinct from an unprogrammed controller.

[I]f a machine is programmed in a certain new and unobvious way, it is physically different from a machine without that program; its memory elements are differently arranged. The fact that these physical changes are invisible to the eye should not tempt us to conclude that the machine has not been changed. If a new machine has not been invented, certainly a "new and useful improvement" of the unprogrammed machine has been, and Congress has said in 35 U.S.C. § 101 that such improvements are statutory subject matter for a patent.

In re Bernhart, 417 F.2d 1395, 1400 (C.C.P.A. 1969).

As is clear from the *Bernhart* decision, the programmable controller of the present claims is structurally distinct from the prior art controller, as its memory elements are differently arranged.

The combination of Mathias et al., Busenbender, and Suzuki et al. do not suggest the claimed fuel cell system because Suzuki et al. do not suggest a control system corresponding to the claimed controller. Suzuki et al. teach a control system which directs dry air to the humidifier (3). Water vapor in the humidifier which causes freezing is thereby swept off by flowing dry air through the exhaust gas passage in the humidifier (see Abstract). Suzuki et al. do not teach the feature of supplying a moisture adjusted wet gas to at least one of the anode and cathode of a fuel cell.

According to the second embodiment of Suzuki et al., which is shown in Fig. 4, dry air Ad2 passes through the fuel cell 1 in the course of supplying the wet-out air passage in the humidifier 3 with the dry air Ad2. Fuel cell 1 is not provided with moisture adjusted wet air. Suzuki et al. do not disclose that dry air Ad2 removes moisture in the fuel cell 1 when it passes there-through. If the dry air Ad2 removes moisture in the fuel cell 1 as it passes there-through,

the moisture content of the dry air Ad2 increases so that it may be impossible to remove moisture in the humidifier 3. This would be contrary to the object of the Suzuki et al. invention.

Claim 21 is separately patentable. Mathias et al. do not suggest the claimed humidity range. The humidity range defined in Mathias is a humidity range when the fuel cell operates. Mathias et al. do not disclose this humidity range as being the humidity range when the fuel cell is not operating, as in the present disclosure. A preferable humidity range when the fuel cell is operating is not necessarily preferable in a state where the fuel cell is not operating.